What is claimed is:

1. Method for dividing the transmission bandwidth into subchannels in modems based on multicarrier modulation technique, in which method the transmission bandwidth is divided into at least three subchannels (2) when both transmission directions are taken into account, c h a r a c t e r i z e d in that the bandwidth of said subchannels (2) at frequency ranges (5) affected at the highest probability by RF interference emissions at frequencies (4) not known *a priori* is set narrower than the bandwidth of other subchannels (2) and the number of said narrower-bandwidth subchannels is not set smaller than two when both transmission directions are taken into account.

2. Method according to claim 1, c h a r a c t e r i z e d in that the bandwidth of said subchannels (2) placed in the frequency range of 90 kHz – 3.6 MHz (5) is set at least 30 % narrower than the bandwidth of other subchannels and the number of said narrower-bandwidth subchannels is not set smaller than two when both transmission directions are taken into account.

3. Method according to claim 1, c h a r a c t e r i z e d in that said method anticipates RF interference occurring at unknown frequencies by assigning the equalizers and/or, respectively, the adaptive filters designed only for attenuating RF interference, having the longest temporal length by the number of their tap coefficients to serve those subchannels (2) that are placed on the frequency bands (5) where radio broadcast activity is highest and the frequency spectrum is most densely populated by the spot frequencies of radio stations.

4. Method according to claim 3, c h a r a c t e r i z e d in that the number of tap coefficients said equalizers and/or, respectively, said adaptive filters designed only for attenuating RF interference, assigned to said subchannels (2) placed on said frequency range of 90 kHz – 3.6 MHz (5) is set larger than the number of corresponding tap coefficients associated with subchannels placed at other points of the

frequency spectrum.

5. Method according to claim 3 or 4, c h a r a c t e r i z e d in that the allocation of available computing capacity between the different subchannels is arranged modi-
fiable case by case so that the numbers of tap coefficients can be altered.

6. Method according to claim 3 or 4, c h a r a c t e r i z e d in that the system is provided with a mechanism capable of changing during the operation of the modem the allocation of the available computing capacity between the different subchannels by modifying said number of tap coefficients in order to optimize the quality and/or speed of data transmission.

7. Method according to claim 7, c h a r a c t e r i z e d in that the criterion for optimization can be selected to be the ratio of detection error rate to the spacing between adjacent detection levels.

8. Multicarrier communication system in which the transmission bandwidth is divided into at least three subchannels when both transmission directions are taken into account, c h a r a c t e r i z e d in that the bandwidth of said subchannels (2) at frequency ranges (5) affected at the highest probability by RF interference emissions at frequencies (4) not known *a priori* is set narrower than the bandwidth of other subchannels (2) and the number of said narrower-bandwidth subchannels is not set smaller than two when both transmission directions are taken into account.

9. System according to claim 8, c h a r a c t e r i z e d in that the bandwidth of said subchannels (2) placed on the frequency range of 90 kHz – 3.6 MHz (5) is set at least 30 % narrower than the bandwidth of other subchannels and the number of said narrower-bandwidth subchannels is not set smaller than two when both transmission directions are taken into account.

10. System according to claim 8, c h a r a c t e r i z e d in that said system

anticipates RF interference occurring at random frequencies by assigning the equalizers and/or, respectively, the adaptive filters designed only for attenuating RF interference, having the longest temporal length by the number of their tap coefficients to serve those subchannels (2) that are placed on the frequency bands (5) where radio

5   broadcast activity is highest and the frequency spectrum is most densely populated by the spot frequencies of radio stations.

11. System according to claim 10, c h a r a c t e r i z e d in that the number of tap coefficients of said equalizers and/or, respectively, said adaptive filters designed

10   only for attenuating RF interference, assigned to said subchannels (2) placed on said frequency range of 90 kHz – 3.6 MHz (5) is set larger than the number of corresponding tap coefficients associated with subchannels placed at other points of the frequency spectrum.

15   12. System according to claim 10 or 11, c h a r a c t e r i z e d in that the allocation of available computing capacity between the different subchannels is arranged modifiable case by case so that the numbers of tap coefficients can be altered.

13. System according to claim 10 or 11, c h a r a c t e r i z e d in that the system is

20   provided with a mechanism capable of changing during the operation of the modem the allocation of the available computing capacity between the different subchannels by modifying said number of tap coefficients in order to optimize the quality and/or speed of data transmission.

25   14. System according to claim 13, c h a r a c t e r i z e d in that the criterion for optimization can be selected to be the ratio of detection error rate to the distance between adjacent detection levels.